### Congress of the United States Washington, DC 20515

July 31, 2017

Chairman Ajit Pai Federal Communications Commission 445 12th Street, SW Washington, DC 20554 The Honorable Mignon Clyburn FCC Commissioner Federal Communications Commission 445 12<sup>th</sup> Street, SW Washington, DC 20554

The Honorable Michael O'Rielly FCC Commissioner Federal Communications Commission 445 12<sup>th</sup> Street, SW Washington, DC 20554

Re: Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268; Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37, ET Docket No. 14-165; Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Preservation of One Vacant Channel in the UHF Television Band for Use by White Space Devices and Wireless Microphones, MB Docket No. 15-146; Amendment of Part 15 of the Commission's Rules for Unlicensed White Space Devices, ET Docket No. 16-56

Dear Chairman Pai, Commissioner Clyburn and Commissioner O'Rielly:

As members of the House Rural Broadband Caucus as well as members interested in decreasing the digital divide, we have dedicated ourselves to ensuring that rural communities enjoy the same access to services and opportunities enabled by broadband internet that are so often taken for granted in urban and suburban communities. We would never fathom a rural resident or business relocating to enjoy plumbing or electricity, but too many of our constituents face just that choice when it comes to the modern equivalent: accessing broadband and the internet.

We are writing because we believe a solution could well be at hand, one that could be realized with significant private sector support and minimal infrastructure investment. Specifically, we are urging the Commission to preserve at least three, 6 MHz television white spaces channels in every media market across the United States in order to promote access to affordable broadband internet, particularly in rural and underserved areas.

According to the FCC's 2016 Broadband Progress Report, approximately 34 million Americans do not have broadband internet access. Of these, about 24 million live in rural communities that lack the network infrastructure necessary to provide a reliable and affordable broadband connection. This means students, farmers, doctors, law enforcement officials, and families across rural America are unable to

access the internet and, consequently, are being denied the economic, health, and public safety advances enabled by that access.

The effects of this disparity are clear for struggling communities. According to a recent Wall Street Journal article, researchers at universities in Texas, Mississippi and Oklahoma found that rural counties with access to broadband correlated to higher incomes and lower unemployment. One in ten Americans is left behind without access to technological opportunities readily available in other parts of the country. Respectfully, we believe it's time for the FCC to take concrete steps to make affordable broadband internet, and the opportunities that come with it, available to *all* Americans.

We believe that the television white spaces (TVWS) have strong potential to revolutionize broadband internet accessibility in rural areas. TVWS allows a broadband internet connection to cover 9 miles, while navigating the physical terrain that at times can make wireless broadband connectivity difficult. Because of this range, these internet connections are extremely cost-effective requiring minimal infrastructure investments, and are far more dependable than the limited connections that many rural areas currently have.

In its Unlicensed Operations in the TV Band proceeding, the FCC adopted rules enabling devices to operate on channel 37 (608-614 MHz) as well as in the so-called "duplex gap" (652-663 MHz) created by the Incentive Auction. The FCC should maintain these rules as it reviews petitions for reconsideration. And in its "Vacant Channel" proceeding, we request that the Commission finalize its proposal and preserve a vacant channel in each market in the post-auction broadcast TV band (54-608 MHz). These steps will ensure that three useable TV channels remain available in every market around the country.

Robust low-cost broadband connections literally connect rural communities to the rest of the world. They allow students to connect to their school networks from home, or use online resources for homework and other projects. Farmers could use cloud computing and analytics software to better grow and monitor their crops, reduce waste, save water, optimize fertilization and maximize yields. Doctors in rural health clinics would be able to access life-saving information through broadband connected networks with urban medical centers. Lawenforcement would be able to quickly dispatch officers and relay arrest-warrant information during emergencies. Families could not only share pictures and stay in touch with each other, but also access a wealth of economic opportunities to which they would otherwise not have access.

In short, broadband internet access will help close the opportunity gap between Americans in rural communities and Americans in urban centers. We believe the TV white spaces hold great promise toward closing that gap quickly and affordably.

Thank you for your consideration of our request.

Sincerely,

Kevin Cramer, Member of Congress

Peter Welch, Member of Congress

Cathy McMorris Rodgers, Member of Congress

Mark Pocan, Member of Congress

Mark Meadows, Member of Congress

Suzan K. DelBene, Member of Congress

Austin Scott, Member of Congress

Derek Kilmer, Member of Congress

Darrell Issa, Member of Congress

Anna G. Eshoo, Member of Congress

Mark	Walker, Member of Congress
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Wht	why
Robert Pittenge	er, Member of Congress



Steve Stivers, Member of Congress



Lisa Blunt Rochester, Member of Congress

Darren Soto, Member of Congress

John Moolenaar, Member of Congress



Hal Rogers, Member of Congress

Will Hurd Will Hurd, Member of Congress

Tom Marino, Member of Congress

David B McKinley, P.E., Member of Congress

Robert J. Wittman, Member of Congress

Col. Paul Cook (Ret.), Member of Congress

Thomas Suozzi, Member of Congress

Rod Blum, Member of Congress

Adam Smith, Member of Congress

Jared Huffman, Member of Congress

Terri Sewell, Member of Congress



Denny Heck, Member of Congress

Pramila Jayapal, Member of Congress

Alma Adams, Member of Congress

Doug Collins, Member of Congress

Dody P. Hice, Member of Congress

David G. Valadao, Member of Congress

Thomas A. Garrett, Jr., Member of Congress

Ruben Gallego, Member of Congress



October 24, 2017

The Honorable Alma Adams U.S. House of Representatives 222 Cannon House Office Building Washington, D.C. 20515

Dear Congresswoman Adams:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

A top priority of mine is to close the digital divide between those that have access to cutting-edge communications services and those that do not. Every American who wants to participate in the digital economy should be able to do so. I believe that unlicensed spectrum, both in the TV bands and in other frequency bands, can and will play an important role in providing broadband services to rural areas. Wireless Internet Service Providers (WISPs) have been making great use of unlicensed spectrum, particularly in the 2.4 GHz and 5 GHz "Wi-Fi" bands, to serve many rural areas. WISPs also now are providing service using spectrum in the 3.6 GHz band. The Commission is also moving forward quickly to enable 5G services, which would make use of high-band spectrum, including unlicensed spectrum, to provide innovative millimeter-wave services that can be used to serve rural communities.

With regard to making sufficient unlicensed spectrum available in the TV bands, the Commission developed regulations several years ago to allow for the provision of broadband services on an unlicensed basis on unassigned channels, known as "white spaces," in the TV bands. In 2015, I supported revisions to the TV white space rules to better provide for deployments in rural areas by allowing for higher power to transmit service over longer distances. As you point out, the low band frequencies in the TV bands offer excellent signal propagation that is particularly helpful in serving rural communities. The Commission is currently evaluating petitions for reconsideration of certain technical rules established in that proceeding, including the rules for unlicensed operations in the TV bands and on channel 37.

### Page 2—The Honorable Alma Adams

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.



October 24, 2017

The Honorable Rick Allen
U.S. House of Representatives
426 Cannon House Office Building
Washington, D.C. 20515

Dear Congressman Allen:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Ajit V. Pai



October 24, 2017

The Honorable Sanford D. Bishop U.S. House of Representatives 2407 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman Bishop:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Rod Blum U.S. House of Representatives 1108 Longworth House Office Building Washington, D.C. 20515

#### Dear Congressman Blum:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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Sincerely,

Ajit V. Pai



October 24, 2017

The Honorable Doug Collins
U.S. House of Representatives
1504 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Collins:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Paul Cook U.S. House of Representatives 1222 Longworth House Office Building Washington, D.C. 20515

Dear Congressman Cook:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Kevin Cramer U.S. House of Representatives 1717 Longworth House Office Building Washington, D.C. 20515

#### Dear Congressman Cramer:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Suzan DelBene U.S. House of Representatives 2442 Rayburn House Office Building Washington, D.C. 20515

Dear Congresswoman DelBene:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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### Page 2—The Honorable Suzan DelBene

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October 24, 2017

The Honorable Anna G. Eshoo U.S. House of Representatives 241 Cannon House Office Building Washington, D.C. 20515

#### Dear Congresswoman Eshoo:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Jeff Duncan U.S. House of Representatives 2229 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman Duncan:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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Ajit V. Pai



October 24, 2017

The Honorable Pramila Jayapal U.S. House of Representatives 319 Cannon House Office Building Washington, D.C. 20515

Dear Congresswoman Jayapal:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Darrell Issa
U.S. House of Representatives
2269 Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Issa:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

A top priority of mine is to close the digital divide between those that have access to cutting-edge communications services and those that do not. Every American who wants to participate in the digital economy should be able to do so. I believe that unlicensed spectrum, both in the TV bands and in other frequency bands, can and will play an important role in providing broadband services to rural areas. Wireless Internet Service Providers (WISPs) have been making great use of unlicensed spectrum, particularly in the 2.4 GHz and 5 GHz "Wi-Fi" bands, to serve many rural areas. WISPs also now are providing service using spectrum in the 3.6 GHz band. The Commission is also moving forward quickly to enable 5G services, which would make use of high-band spectrum, including unlicensed spectrum, to provide innovative millimeter-wave services that can be used to serve rural communities.

With regard to making sufficient unlicensed spectrum available in the TV bands, the Commission developed regulations several years ago to allow for the provision of broadband services on an unlicensed basis on unassigned channels, known as "white spaces," in the TV bands. In 2015, I supported revisions to the TV white space rules to better provide for deployments in rural areas by allowing for higher power to transmit service over longer distances. As you point out, the low band frequencies in the TV bands offer excellent signal propagation that is particularly helpful in serving rural communities. The Commission is currently evaluating petitions for reconsideration of certain technical rules established in that proceeding, including the rules for unlicensed operations in the TV bands and on channel 37.

### Page 2—The Honorable Darrell Issa

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Ajit V. Pai



October 24, 2017

The Honorable Will Hurd U.S. House of Representatives 317 Cannon House Office Building Washington, D.C. 20515

#### Dear Congressman Hurd:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Ajit V. Pai



October 24, 2017

The Honorable Jared Huffman U.S. House of Representatives 1406 Longworth House Office Building Washington, D.C. 20515

Dear Congressman Huffman:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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Ajit V. Pai



October 24, 2017

The Honorable Ruben Gallego U.S. House of Representatives 1218 Longworth House Office Building Washington, D.C. 20515

Dear Congressman Gallego:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.



October 24, 2017

The Honorable John Garamendi U.S. House of Representatives 2438 Rayburn House Office Building Washington, D.C. 20515

#### Dear Congressman Garamendi:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Ajit V. Pai



October 24, 2017

The Honorable Tom Garrett U.S. House of Representatives 415 Cannon House Office Building Washington, D.C. 20515

#### Dear Congressman Garrett:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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#### Page 2—The Honorable Tom Garrett

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Ajit V. Pai



October 24, 2017

The Honorable Denny Heck U.S. House of Representatives 425 Cannon House Office Building Washington, D.C. 20515

#### Dear Congressman Heck:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.



October 24, 2017

The Honorable Jaime Herrera Beutler U.S. House of Representatives 1107 Longworth House Office Building Washington, D.C. 20515

Dear Congresswoman Herrera Beutler:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Ajit V. Pai



October 24, 2017

The Honorable Jody Hice U.S. House of Representatives 324 Cannon House Office Building Washington, D.C. 20515

#### Dear Congressman Hice:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.



October 24, 2017

The Honorable Harold Rogers U.S. House of Representatives 2406 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman Rogers:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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## Page 2—The Honorable Harold Rogers

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Sincerely.

Ajit V. Pai



October 24, 2017

The Honorable Lisa Blunt Rochester U.S. House of Representatives 1123 Longworth House Office Building Washington, D.C. 20515

Dear Congresswoman Rochester:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Jared Polis
U.S. House of Representatives
1727 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Polis:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Mark Pocan U.S. House of Representatives 1421 Longworth House Office Building Washington, D.C. 20515

#### Dear Congressman Pocan:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Robert Pittenger U.S. House of Representatives 224 Cannon House Office Building Washington, D.C. 20515

Dear Congressman Pittenger:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.



October 24, 2017

The Honorable Dan Newhouse U.S. House of Representatives 1318 Longworth House Office Building Washington, D.C. 20515

Dear Congressman Newhouse:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

A top priority of mine is to close the digital divide between those that have access to cutting-edge communications services and those that do not. Every American who wants to participate in the digital economy should be able to do so. I believe that unlicensed spectrum, both in the TV bands and in other frequency bands, can and will play an important role in providing broadband services to rural areas. Wireless Internet Service Providers (WISPs) have been making great use of unlicensed spectrum, particularly in the 2.4 GHz and 5 GHz "Wi-Fi" bands, to serve many rural areas. WISPs also now are providing service using spectrum in the 3.6 GHz band. The Commission is also moving forward quickly to enable 5G services, which would make use of high-band spectrum, including unlicensed spectrum, to provide innovative millimeter-wave services that can be used to serve rural communities.

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October 24, 2017

The Honorable John Moolenaar U.S. House of Representatives 117 Cannon House Office Building Washington, D.C. 20515

Dear Congressman Moolenaar:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Mark Meadows
U.S. House of Representatives
1024 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Meadows:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Cathy McMorris Rodgers U.S. House of Representatives 1314 Longworth House Office Building Washington, D.C. 20515

Dear Congresswoman McMorris Rodgers:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable David B. McKinley U.S. House of Representatives 2239 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman McKinley:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Tom Marino
U.S. House of Representatives
2242 Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Marino:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Derek Kilmer U.S. House of Representatives 1520 Longworth House Office Building Washington, D.C. 20515

#### Dear Congressman Kilmer:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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Ajit V. Pai



October 24, 2017

The Honorable Walter B. Jones U.S. House of Representatives 2333 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman Jones:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Rob Wittman U.S. House of Representatives 2055 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman Wittman:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Peter Welch U.S. House of Representatives 2303 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman Welch:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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Ajit V. Pai



October 24, 2017

The Honorable Mark Walker U.S. House of Representatives 1305 Longworth House Office Building Washington, D.C. 20515

Dear Congressman Walker:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Sincerely,

Ajit V. Pai



October 24, 2017

The Honorable David G. Valadao U.S. House of Representatives 1728 Longworth House Office Building Washington, D.C. 20515

Dear Congressman Valadao:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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Ajit V. Pai



October 24, 2017

The Honorable Tom Suozzi
U.S. House of Representatives
226 Cannon House Office Building
Washington, D.C. 20515

Dear Congressman Suozzi:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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I appreciate your interest in this matter. Please let me know if I can be of any further assistance.



October 24, 2017

The Honorable Steve Stivers U.S. House of Representatives 1022 Longworth House Office Building Washington, D.C. 20515

Dear Congressman Stivers:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

A top priority of mine is to close the digital divide between those that have access to cutting-edge communications services and those that do not. Every American who wants to participate in the digital economy should be able to do so. I believe that unlicensed spectrum, both in the TV bands and in other frequency bands, can and will play an important role in providing broadband services to rural areas. Wireless Internet Service Providers (WISPs) have been making great use of unlicensed spectrum, particularly in the 2.4 GHz and 5 GHz "Wi-Fi" bands, to serve many rural areas. WISPs also now are providing service using spectrum in the 3.6 GHz band. The Commission is also moving forward quickly to enable 5G services, which would make use of high-band spectrum, including unlicensed spectrum, to provide innovative millimeter-wave services that can be used to serve rural communities.

With regard to making sufficient unlicensed spectrum available in the TV bands, the Commission developed regulations several years ago to allow for the provision of broadband services on an unlicensed basis on unassigned channels, known as "white spaces," in the TV bands. In 2015, I supported revisions to the TV white space rules to better provide for deployments in rural areas by allowing for higher power to transmit service over longer distances. As you point out, the low band frequencies in the TV bands offer excellent signal propagation that is particularly helpful in serving rural communities. The Commission is currently evaluating petitions for reconsideration of certain technical rules established in that proceeding, including the rules for unlicensed operations in the TV bands and on channel 37.

### Page 2—The Honorable Steve Stivers

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October 24, 2017

The Honorable Darren Soto U.S. House of Representatives 1429 Longworth House Office Building Washington, D.C. 20515

Dear Congressman Soto:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Adam Smith U.S. House of Representatives 2264 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman Smith:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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October 24, 2017

The Honorable Terri A. Sewell U.S. House of Representatives 2201 Rayburn House Office Building Washington, D.C. 20515

Dear Congresswoman Sewell:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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Sincerely,

Ajit V. Pa



October 24, 2017

The Honorable Austin Scott U.S. House of Representatives 2417 Rayburn House Office Building Washington, D.C. 20515

Dear Congressman Scott:

Thank you for your letter concerning the importance of ensuring that rural communities can enjoy access to services and opportunities enabled by broadband Internet. As you know, I have long been a proponent of Commission actions and policies to benefit rural communities, and believe that we must continue to find ways to ensure that these and other underserved communities are connected to digital opportunity. High-speed broadband Internet access is critical to economic opportunity, job creation, and civic engagement.

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